AMENDMENTS TO THE CLAIMS

The claims have been reproduced in their entirety with appropriate indications of their respective statuses.

1. (Currently Amended) A dielectric coating for use on a conductive substrate comprising:

a silsesquioxane polymer of the formula:

$[R_xSiO_{(4-x)/2}]_n$

wherein x=1-4 and wherein R comprises a compound selected from the group consisting of: methyl, phenyl, hydrido, hydroxyl, alkoxy groups and combinations of the above, or monovalent radicals independently selected from alkyl, aryl , alkylamide, arylamide, alkylamino groups or arylamino radicals;

said dielectric coating having a network structure and exhibiting resistance to temperatures in the range of 550°C with a resident time of at least one hour.

2. (Previously Presented) The dielectric coating of claim 1 wherein the silsesquioxane polymer comprises:

$[RSiO_{3/2}]_n$

wherein R comprises a compound selected from the group consisting of: methyl, phenyl, hydrido, hydroxyl, alkoxy and combinations of the above or monovalent radicals independently selected from alkyl, aryl , alkylamide, arylamide, alkylamino groups or arylamino radicals.

3. (Previously Presented) The dielectric coating of claim 2 wherein the silsesquioxane polymer further includes silanol units of the formula: $[RSi\ (OH)_xO_y]$ where x+y=3 and which can be silylated with appropriate organosiloxanes to produce corresponding silylated polysilsesquioxanes.

4. (Previously Presented) The dielectric coating of claim 1 wherein the silsesquioxane polymer comprises a polymethyl silsesquioxane of the formula: $[CH_3SiO_{(3/2)}]_n$.

5. (Previously Presented) A dielectric coating for use on a conductive substrate comprising a silsesquioxane copolymer of the formula: $R^1_aR^2_bR^3_cSiO_{(4-a-b-c)/2}$, wherein: a is zero or a positive number, b is zero or a positive number, c is zero or a positive number, with the provisos that $0.8\leq(a+b+c)\leq3.0$ and wherein the copolymer has an average of at least two R^1 groups per molecule, and each R^1 is a functional group independently selected from the group consisting of hydrogen atoms and monovalent hydrocarbon groups having aliphatic unsaturation, and each R^2 and each R^3 are monovalent hydrocarbon groups independently selected from the group consisting of nonfunctional groups and R^1, said dielectric coating having a network structure.

6. (Original) The dielectric coating of claim 5 wherein R^1 is an alkenyl group and R^2 and R^3 are nonfunctional groups selected from the group consisting of alkyl and aryl groups.

7. (Original) The dielectric coating of claim 6 wherein R^1 is selected from the group consisting of vinyl and allyl groups.

8. (Original) The dielectric coating of claim 6 wherein R^2 and R^3 are selected from the group consisting of methyl, ethyl, isopropyl, n-butyl, and isobutyl groups.

9. (Previously Presented) The dielectric coating of claim 1 wherein the silsesquioxane polymer comprises a phenyl-methyl siloxane compound of the formula: $[(MeSiO_{3/2})_{0.25}(PhSiO_{3/2})_{0.15}(Ph_2SiO)_{0.10}(MePhSiO)_{0.50}]$.

10. (Currently Amended) A substrate comprising:

a flexible conductive material;

a dielectric coating disposed on a surface of the flexible conductive material;

said dielectric coating comprising a silsesquioxane polymer of the formula: $[R_xSiO_{(4-x)/2}]_n$

wherein x=l-4 and wherein R comprises a compound selected from the group consisting of methyl, phenyl, hydrido, hydroxyl, alkoxy groups and combinations of the above or monovalent radicals independently selected from alkyl, aryl, alkylamide, arylamide, alkylamino groups or arylamino radicals;

said dielectric coating having a network structure and exhibiting resistance to temperatures in the range of 550°C with a resident time of at least one hour.

11. (Previously Presented) The substrate of claim 10 wherein the silsesquioxane polymer comprises a compound of the formula:

$[RSiO_{3/2}]_n$

wherein R comprises a compound selected from the group consisting of: methyl, phenyl, hydrido, hydroxyl, alkoxy and combinations of the above, or monovalent radicals independently selected from alkyl, aryl, alkylamide arylamide, alkylamino groups or arylamino radicals.

12. (Previously Presented) The substrate of claim 11 wherein the silsesquioxane polymer further includes silanol units of the formula:

$[RSi(OH)_xO_y]$

where x+y=3 and which can be silylated with appropriate organosiloxanes to produce corresponding silylated polysilsesquioxanes.

13. (Previously Presented) The substrate of claim 10 wherein the silsesquioxane polymer comprises a polymethyl silsesquioxane of the formula: $[CH_3SiO_{(3/2)}]_n$.

14. (Previously Presented) A substrate comprising a flexible conductive material, and a dielectric coating disposed on one surface of the flexible conductive material, the dielectric coating comprising a silsesquioxane copolymer of the formula:

$R^1_aR^2_bR^3_cSiO_{(4-a-b-c)/2}$,

wherein: a is zero or a positive number, b is zero or a positive number, c is zero or a positive number, with the provisos that $0.8 \leq (a+b+c) \leq 3.0$ and wherein the copolymer has an average of at least 2 R^1 groups per molecule, and each R^1 is a functional group independently selected from the group consisting of hydrogen atoms and monovalent hydrocarbon groups having aliphatic unsaturation, and each R^2 and each R^3 are monovalent hydrocarbon groups independently selected from the group consisting of nonfunctional groups and R^1, said dielectric

coating having a network structure and exhibiting resistance to temperatures in the range of 550ºC with a resident time of at least one hour.

15. (Original) The substrate of claim 14 wherein R^1 is an alkenyl group and R^2 and R^3 are nonfunctional groups selected from the group consisting of alkyl and aryl groups.

16. (Original) The substrate of claim 15 wherein R^1 is selected from the group consisting of vinyl and allyl groups.

17. (Original) The substrate of claim 15 wherein R^2 and R^3 are selected from the group consisting of methyl, ethyl, isopropyl, n-butyl, and isobutyl groups.

18. (Previously Presented) The dielectric coating of claim 1 wherein the silsesquioxane polymer comprises a phenyl-methyl siloxane compound of the formula:

$$[(MeSiO_{3/2})_{0.25}\ (PhSiO_{3/2})_{0.15}\ (Ph_2SiO)._{0.10}(MePhSiO)_{0.50}].$$

19. (Previously Presented) The dielectric coating of claim 1, wherein the silsesquioxane polymer further comprises a reinforcing filler.

20. (Previously Presented) The dielectric coating of claim 19, wherein the reinforcing filler comprises colloidal silica particles having a size of from 5 to 150 nm.

21. (Previously Presented) The substrate of claim 10, wherein the silsesquioxane polymer further comprises a reinforcing filler.

22. (Previously Presented) The substrate of claim 21, wherein the reinforcing filler comprises colloidal silica particles having a size of from 5 to 150 nm.